


many separate compilation, static semantics of programming languages

3 Transport Layer Issues: A transport layer approach for achieving aggregate bandwidths on multi-homed mobile hosts

Hung-Yun Hsieh, Raghupathy Sivakumar

September 2002 **Proceedings of the 8th annual international conference on Mobile computing and networking**

Full text available:  [pdf\(380.57 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)


Due to the availability of a wide variety of wireless access technologies, a mobile host can potentially have subscriptions and access to more than one wireless network at a given time. In this paper, we consider such a multi-homed mobile host, and address the problem of achieving bandwidth aggregation by striping data across the multiple interfaces of the mobile host. We show that both link layer striping approaches and application layer techniques that stripe data across multiple TCP sockets d ...

Keywords: bandwidth aggregation, multi-homed mobile host, striping

4 Reception and posters: Application of a content-based percussive sound synthesizer to packet loss recovery in music streaming

Lonce Wyse, Ye Wang, Xinglei Zhu

November 2003 **Proceedings of the eleventh ACM international conference on Multimedia**

Full text available:  [pdf\(318.71 KB\)](#)

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This paper presents a novel method to recover lost packets in music streaming using a synthesizer to generate percussive sounds. As an improvement of the state-of-the-art system that uses a content-based audio codebook, the new method can greatly reduce the redundant information needed to recover perceptually critical lost packets.

Keywords: music streaming, packet error recovery, sound synthesis

5 Telecommunications: Fluid simulation: discrete event fluid modeling of TCP

David M. Nicol

December 2001 **Proceedings of the 33rd conference on Winter simulation**

Full text available:  [pdf\(151.17 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

The bulk of Internet traffic is carried using variants of the TCP protocol. A realistic simulation-based performance study of any distributed application run over the Internet (e.g. reliable multicast) must therefore account for the impact that TCP background traffic has upon application behavior. Because TCP flows are shaped by other TCP flows, it is difficult to model TCP and its impact on other traffic other than by explicitly simulating it. This adds a significant computational burden to the ...

6 Loss profiles: a quality of service measure in mobile computing

Krishanu Seal, Suresh Singh

3 [Video transcoder architectures for bit rate scaling of H.263 bit streams](#)

Jeongnam Yoon, Ming-Ting Sun, Jun Xin

October 1999 **Proceedings of the seventh ACM international conference on Multimedia (Part 1)**

Full text available: [pdf\(808.08 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Video transcoding is one of the key technologies in implementing dynamic adaptation of the bit rate of a pre-encoded video stream to the available bandwidth over various networks. Many different transcoder architectures have been proposed to achieve fast processing. However, they suffer from quality degradation due to the drift error. In this paper, we investigate the drift caused by the fast transcoder architectures for transcoding H.263 bitstreams. We also discuss the limitations of the e ...

Keywords: drift, motion compensation, video transcoding bit rate scaling

4 [FastSplats: optimized splatting on rectilinear grids](#)

Jian Huang, Roger Crawfis, Naeem Shareef, Klaus Mueller

October 2000 **Proceedings of the conference on Visualization '00**

Full text available: [pdf\(2.44 MB\)](#)

Additional Information: [full citation](#), [citations](#), [index terms](#)

5 [AROMA---adaptive request channel multiple access protocol for wireless ATM networks](#)

Anna Hać, Boon Ling Chew

November 2001 **International Journal of Network Management**, Volume 11 Issue 6

Full text available: [pdf\(669.87 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

We propose a new multiple access protocol based on demand assignment. This protocol is designed to reduce contention in the request phase while minimizing transmission delay under various network (ATM) environments. Our protocol uses an adaptive scheme that changes under heavy traffic conditions, and also provides priority to certain delay-sensitive traffic.

6 [Multimedia: Architecture of a quality based intelligent proxy \(QBIX\) for MPEG-4 videos](#)

Peter Schojer, Laszlo Böszörményi, Hermann Hellwagner, Bernhard Penz, Stefan Podlipnig

May 2003 **Proceedings of the 12th international conference on World Wide Web**

Full text available: [pdf\(296.15 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Due to the increasing availability and use of digital video data on the Web, video caching will be an important performance factor in the future WWW. We propose an architecture of a video proxy cache that integrates modern multimedia and communication standards. Especially we describe features of the MPEG-4 and MPEG-7 multimedia standards that can be helpful for a video proxy cache. QBIX supports real-time adaptation in the compressed and in the decompressed domain. It uses adaptation to improve ...

Keywords: LRU, MPEG-4, MPEG-7, RTP, RTSP, media adaptation, media gateway, replacement, video caching, video proxy